

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Takeshi Watanabe

Application No.: 10/629,819

Confirmation No.: 7294

Filed: July 30, 2003

Art Unit: 2627

For: METHOD AND SYSTEM OF CREATING A
BACKUP DISC OF A HYBRID DISC

Examiner: Parul H. Gupta

REQUEST FOR RECONSIDERATION

MS Amendment
Commissioner for Patents
P.O. Box 1450,
Alexandria, VA 22313-1450

Dear Sir:

This paper is responsive to the Office Action dated January 9, 2008. On February 12, 2008, the examiner confirmed, over the phone, that the Office Action was not final.

The present application relates to a method of creating a backup disc that can be used instead of a hybrid type source disc, to preserve the contents of the source disc safe from damage (specification, page 4, lines 5-11). The method includes the steps of (1) determining whether a target disc is qualified to be the backup disc, (2) loading the contents (i.e., the backup information) from the source disc, and (3) writing the information in the target disc. In operation, the qualification determining step may be performed by comparing a lead-in start time K1 recorded in the source disc to a lead-in start time K2 recorded in the target disc (Fig. 10, S409; Fig. 11, S421, S423; page 39, lines 2-6). The lead-in start time may be specific to each manufacturer (page 27, lines 7-11). This way, the determining step can be used to prevent unauthorized copying (page 39, lines 6-13).

Thus, the present invention relates to hybrid disks. According to the present invention, a hybrid disk can be used as a source disk. In addition, a second important feature of the invention is that criteria for determining whether a target disk is qualified for normal copying are predefined based on substrate information of the source hybrid disk and are used to exclude disks disqualified for normal copying. These features are not disclosed or suggested in Gehr and the other prior art references (the references are discussed in more detail below). In particular, the second feature enables disqualified disks to be determined and excluded without activation of writing. Specifically, certain types of disks that have no ROM part (substrate information), such as CD-R and CD-RW, are excluded. In addition, even if a target disk is the same type of hybrid disk as the source disk, a target hybrid disk that does not match the determination criteria is determined to be a disqualified disk, and excluded from the recording apparatus.

Thus, the present invention effectively prevents users from copying the source disk illegally. In addition, even if a legitimate user accidentally inserts a disqualified CD-R or hybrid disk as a target disk, the present invention enables the user to immediately recognize that the disqualified disk has been inserted before activation of writing information. According to the present invention, the user can insert and copy a qualified disk without difficulty. So, the present invention can be differentiated from Gehr in that the present invention is characterized by determining before activation of writing information whether the inserted disk is qualified as the target disk.

Claims 1-5, 7-14, 16-23, 25-27 and 31 are rejected under 35 U.S.C. § 103 as being unpatentable over Gehr in view of Tatano, and further in view of Iida. Reconsideration is respectfully requested.

The prior art references, even when considered together, do not suggest the step of “determining whether or not a target optical disc is qualified as the backup disc of [a] hybrid type source optical disc by comparing the source optical disc to the target optical disc based on information recorded in the source optical disc and the target optical disc.” The step is recited in claim 1.

The Office Action's rationale for the rejection of claim 1, especially as it relates to Gehr and Tatano, is not clear. It is especially unclear which reference is supposed to meet the recited "comparing" step of claim 1. The Office Action, page 17, states that "[t]he main idea of using comparison to determine whether a backup is qualified is given in Gehr." Applicant has studied Gehr, however, and can find nothing therein that is even remotely like "using comparison to determine whether a backup is qualified." There is nothing like it in column 4, lines 9-28, or anywhere else in Gehr.

Column 4, lines 9-28, of Gehr (mentioned on page 2 of the Office Action) says that determinations are made in steps 404 and 408. In step 404 (Fig. 4), a determination is made as to whether the system 100 (Fig. 1) contains one disc drive or two disc drives. If it is determined that there are two disc drives, then the process moves to step 408 (Fig. 4), where a determination is made as to whether the drives are "the same or different in regards to the type of CDs that they can read" (column 4, lines 11-20). During steps 404 and 408, no backup need be present in the system 100. A prompt for a user to insert a blank/copy CD can occur at step 606 (Fig. 6A; column 5, lines 54-60). So the determinations made in steps 404 and 408 cannot involve determining "whether a backup is qualified," and even more clearly do not "[use] comparison to determine whether a backup is qualified." There is nothing in column 4, lines 9-28, of Gehr, about "using comparison to determine whether a backup is qualified," and the Office Action does not point to any other part of Gehr that might be relevant.

Further, the Office Action, page 17, states, without any support whatsoever, that "Gehr is relied upon for checking if a backup is legitimate." The statement is not true, and the Office Action does not point to any part of Gehr, either within the specification or in the drawings, to try to support it. Contrary to the Office Action, Gehr has nothing to do with "checking if a backup is legitimate."

Applicant respectfully submits that the difficulty that the Office Action has in articulating a rationale for combining Gehr and Tatano stems from the fact that the teachings are simply not applicable to each other. Gehr relates to determining whether there are one or two disk drives and, if there are two drives, whether the drives are of the same type or different.

Gehr cannot meet the limitations of claim 1, since it does not disclose or suggest comparing one disc to another. Gehr might suggest some “type of comparison,” but it is not anything like the comparison recited in the claims. Tatano, on the other hand, has nothing to do with drives, but relates to checking information on discs. If Gehr “determines whether two drives are the same or different,” what purpose would it serve in Gehr to compare a source optical disc to a target optical disc? Tatano does not seem to have any applicability to determining whether two drives are the same or different.

As noted in the previous response, “[t]he key to supporting any rejection under 35 U.S.C. § 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious.” Here, however, it is not at all clear what the Office Action has in mind. The references are directed toward entirely different, unrelated problems, and the Office Action provides no explanation to the contrary. The proposed combination only starts to make sense with the benefit of hindsight.

Moreover, please keep in mind that claim 1 recites a method of creating a backup disc “of a hybrid type source optical disc.” The Tatano system will not permit copying except where document control information recorded in the destination medium coincides with document control information in the source medium. It is not understood how anything reflecting the Tatano system would work if the source medium were a hybrid type disc (as it would have to be to meet the relevant claim limitations). If the Tatano source medium were a hybrid type disc, then documents recorded in a read only section of the source medium presumably would be copied into a writable section of the destination medium, and then the document control information of the two disks would not coincide.

Iida does not overcome the deficiencies of Gehr and Tatano. Iida refers to a hybrid disk, but it has nothing to do with copying or creating a backup disc. It adds nothing to the issue of whether it would have been obvious to combine Gehr and Tatano, and it adds nothing with respect to the issue of whether anything in the Tatano system would work if the source medium were indeed a hybrid type disc. Moreover, it becomes impossible to understand the rationale for modifying Tatano in view of Iida in the case where Tatano is already somehow used to modify

Gehr. Iida does not provide anything that is applicable to the problems to which Gehr and Tatano are directed. It appears that Iida was cited solely because claim 1 refers to a hybrid type disc. Applicant's claim has been used, improperly, as a roadmap, leading the Office Action simply to pick, choose and lump together disparate teachings. In reality, there is no one who would have undertaken the multi-step combination of modifications suggested by the Office Action in this case, unless they had foreknowledge of Applicant's own invention.

Claims 2-9 and 31 depend from claim 1, and should be allowable along with claim 1 and for other reasons. Claims 10-27 recite similar limitations, and should also be allowable along with claim 1, and for other reasons.

Dependent claim 8 (depends from dependent claim 6) recites a step of determining that ROM information of the target disc is dummy data, and claim 8 goes on to say that (1) RAM information from a writable area of the source disc and (2) ROM information of the source disc are written in a writable area of the target disc, based on the dummy data determination. Thus, when a qualified hybrid disk is used as the target disk, the present invention enables the source hybrid disk to be copied to the target disk. In the conventional prior art, since the substrate information of a hybrid disk cannot be recorded in other optical disks, such copying to hybrid disks cannot be fulfilled. Moreover, even if the prior art somehow could fulfill copying to the target disc RAM part, the ROM part may not be linked to the RAM part. So, it is not possible to reproduce copied data. Dependent claim 8 is believed to be clearly allowable over the prior art references.

Claims 28-30 are rejected under 35 U.S.C. § 103 as being unpatentable over Fairman in view of Tatano. Reconsideration is respectfully requested. Claims 28-30 each refer to "creating a backup disc of a hybrid type source optical disc." In addition, the claims each recite the step of "determining that ROM information of the target optical disc is dummy data when the source optical disc and the target optical disc have the same substrate information and a portion of ROM information of the source optical disc and a portion of ROM information of the target optical disc are not the same." An example of the claimed invention is shown in Fig. 14, steps S523, S527 and S533.

The Office Action, page 14, contends that the Fairman master disc, the one that is created in step 170 of Fig. 5, corresponds to the “target optical disc” of claims 28-30. (The Office Action, page 14, last line, says that the step of “writing said backup information to the target optical disc” corresponds to column 8, lines 40-43, of Fairman, which says that ATIP, and not the dummy file 162, is written on the master disc in step 172.) Please note, however, the information that is written onto the Fairman master disc does not come from a hybrid type source optical disc. The information (the master data) is stored on a writeable optical disc (column 8, lines 18-22), and then input to a laser beam modulation control system 100 (Fig. 3). The Fairman master disc cannot be considered the “target optical disc” of claims 28-30, because the Fairman master disc is not a “backup disc of a hybrid type source optical disc,” as recited in claims 28-30.

The Office Action also seems to suggest, confusingly, that the Fairman master disc, the one that is created in step 170 of Fig. 5, corresponds to the hybrid type source optical disc of claims 28-30. (The Office Action, page 14, line 12, associates the recited hybrid type source optical disc with column 8, lines 6-8, of Fairman, which refers to “preparing the master disc and subsequent stamped optical discs 10.”) The Fairman master disc, however, cannot be the recited hybrid type source optical disc, because the Fairman master disc is made of photoresist (column 7, lines 1-26) and is not used in the steps recited in claims 28-30 for the source optical disc. For example, there is no “loading” of backup information from the Fairman master disc. Therefore, if the Fairman master disc is considered the source optical disc of claims 28-30, it is not understood where the prior art shows the step of “loading backup information from the source optical disc,” as recited in claims 28-30. Tatano is relied upon for other features (comparing a source optical disc to a target optical disc). Therefore, claims 28-30 should be allowable over the combination of Fairman in view of Tatano.

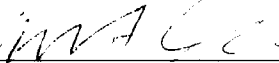
Further, the Office Action’s reference, on page 14, to conventional technology is not understood. Neither the Fairman writeable optical disc (column 8, lines 18-22) nor the Fairman master disc (formed of photoresist) would have been considered a conventional hybrid disc of the type discussed in column 1 of Fairman. As stated in the previous response, Fairman is basically unrelated to the invention of claims 28-30.

Further, there does not appear to be any teaching in Fairman and Tatano of the equality and inequality recited in claims 28-30, where (1) the source optical disc and the target optical disc have the same substrate information and (2) a portion of ROM information of the source optical disc and a portion of ROM information of the target optical disc are not the same. It is not even understood where the prior art might meet the recited source and target optical discs, much less where in the prior art such discs would meet these two conditions of claims 28-30. The Office Action provides no meaningful explanation, but only refers, on page 14, to "lines 6-43." Applicant has searched the entire Fairman document, and has found nothing therein that even remotely refers to the conditions of claims 28-30.

Allowance of the application with claims 1-31 is solicited.

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Respectfully submitted,

By 

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